



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/777,733

02/12/2004

Hsiang-An Hsieh

250324-1040

5601

24504 7590 01/10/2007

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
100 GALLERIA PARKWAY, NW
STE 1750
ATLANTA, GA 30339-5948

EXAMINER

LEE, CHUN KUAN

ART UNIT

PAPER NUMBER

2181

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/777,733	Applicant(s) HSIEH, HSIANG-AN	
	Examiner Chun-Kuan (Mike) Lee	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,7,8,16,17,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,8,16,17,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

[Signature]
FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
11/6/2007

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/18/2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3, 7-8, 16-17 and 21-22 have been considered but are moot in view of the new ground(s) of rejection. Objections to claims 1 and 16 due to informalities are withdrawn. Rejections of claims 1, 3, 7-8, 16-17 and 21 under 35 U.S.C. § 112 1st paragraph is maintained. Rejections of claims 1, 3, 7-8, 16-17 and 21 under 35 U.S.C. § 112 2nd paragraph is withdrawn. Currently, claims 2, 4-6, 9-15, 18-20 are canceled and claims 1, 3, 7-8, 16-17 and 21-22 are pending for examination.

3. In responding to applicant's argument regarding the claims rejected under 35 U.S.C. § 112 1st paragraph that the claimed limitation "two-system end interfaces" is supported in the amended Specification as the two-system end interfaces includes

CONN1 in Fig 4 and Fig. 7, which interfaces an ExpressCard to the adapter of the claimed invention and CONN2 in Fig. 4 and Fig. 7, which interfaces USB to the adapter of the claimed invention, wherein applicant further stated that the instant argument follow the same reasoning in the last response. as stated on page 15, last paragraph and page 16, 5th paragraph. Applicant's arguments have fully been considered, but are not found to be persuasive.

Applicant's reasoning from last response did not clearly point out how "two system-end interface" is supported. Applicant appears to support the "system-end interface" by amending the Specification, such that the "two system-end interface" appears to be pointing to a single connector (e.g. Drawings, Fig. 5, ref. 54), but applicant's arguments regarding the "two system-end interface" is directed to the converter circuitries of CONN1 and CONN2 in Fig. 4 and Fig. 7 rather than the single connector. Therefore, there also appears to be an issue of new matter in the Specification, as the claimed "two system-end interface" is referring to the converting circuitries, but the Specification is referring to the single connector.

4. In responding to applicant's arguments that there is no proper motivation for selectively combining Jones with Mowery, because both the suggestion and the expectation of success are not found in the prior art, but rather in the applicant's disclosure, as stated on page 19, 1st paragraph to last paragraph. Applicant's arguments have fully been considered, but are not found to be persuasive.

The motivation for combining Jones with Mowery is disclosed by Jones, more specifically, Jones disclosed the motivation to be the benefit of implementing an active adapter that can be used interchangeably connecting a different memory/memories and a device (Jones, [0023]). Further more, it appears neither Mowery nor Jones disclose that by combining with the other, the resulting combination would fail technologically, therefore the combination of the references would succeed.

Specification

The amendment filed 11/18/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "two system-end interfaces"

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3, 7-8, 16-17 and 21-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s)

Art Unit: 2181

contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claim 1, in responding to the reasoning from the last response, it appears unclear to the examiner where in the Specification or the Drawings the claimed limitation "a storage media interface" and "storage media card interface" are supported, as applicant has not pointed out where the amendments in the claim 1 are supported, nor does there appear to be a written description of the claimed limitations "two-system end-interfaces," "a storage media interface" and "storage media card interface" in the application as filed. Further more, it appears unclear where "a storage media interface, connected to a plurality of storage media cards" is supported in the Specification or the Drawings, more specifically, the claimed limitation appears to reflect wherein the connection is a simultaneous connection of the plurality of storage media cards to the storage media interface, and examiner is unable to find such support in the Specification or the Drawings.

Furthermore, applicant appears to support the "two system-end interface" by amending the Specification, such that the "two system-end interface" appears to be pointing to a single connector (e.g. Drawings, Fig. 5, ref. 54), but applicant appears to rely on the converter circuitry of CONN1 and CONN2 in Fig. 4 and Fig. 7 for the claimed "two system-end interface," as pointed out in applicant's remarks (page 16, 5th paragraph).

Claims 3, 7-8, 16-17 and 21-22 are also rejected at least due to direct or indirect dependency on the rejected independent claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 21, it appears unclear as to the claim's dependency on the canceled claim 20. The examiner will assume that claim 21 is dependent on independent claim 1 for the current examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 7-8, 16-17 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery et al. (US Patent 6,984,152) in view of Jones et al. (US Pub 2003/0084220 A1).

Art Unit: 2181

8. As per claim 1, Mowery teaches a multiple format interface adapter for small storage media comprising:

a storage media interface (Fig. 3, ref. 310 and media card side of Fig. 16), connected one of a different kinds of storage media cards (Fig. 3, ref. 315) to the multiple format interface adapter (adapter 1610 of Fig. 16) (Fig. 16 and col. 5, ll. 43-46), wherein the multiple format interface adapter is compatible with the plurality of media cards formats such as Smart Media, SD/MMC and Memory Stick;

a system-end interface (host side of Fig 16) used to connect the multiple format interface adapter (adapter 1610 of Fig. 16);

a signal controller (e.g. translation logic) (Fig. 1, ref. 120), converting signals between the system-end interface and the storage media interface when one of the storage media cards inserts in the multiple format interface adapter (col. 2, ll. 13-20).

Mowery does not teach the multiple format interface adapter for small storage media comprising two system-end interfaces, respectively complying with two different system-end format, and uses to connect the multiple format interface adapter to one of two different kinds of system ends.

Jones teaches an interface adaptor (Fig. 3B, ref. 40) card reader that connects one of a plurality of memory cards (Fig. 3B, ref. 41, 43, 45, 47) of different formats (e.g. MMC, SD, SM, MS) to a plurality of system-end interfaces (Fig. 3B, ref. 51, 53 and Fig. 4, ref. 176) (e.g. PCMCIA, IDE) (Fig. 3C; Fig. 4 and [0073]-[0074]), wherein each system end interface would comply with its own system-end format.

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Jones' interface adapter having the plurality of system-end interfaces into Mowery's multiple format interface adapter. The resulting combination of the references further teaches the multiple format interface adapter for small storage media comprising the PCMCIA and IDE system-end interface, wherein each system end interface would comply with its own system-end format, and connects the multiple format interface adapter to either the PCMCIA system-end interface or the IDE system-end interface.

Therefore, it would have been obvious to combine Jones with Mowery for the benefit of implementing an active adapter that can be used interchangeably connecting a different memory/memories and a device (Jones, [0023]).

9. As per claim 3, Mowery and Jones teach all the limitations of claim 1 as discussed above, where Jones further teaches the multiple format interface adapter for small storage comprising wherein the storage medium cards includes a fixed small hard disk (e.g. MicroDrive) (Jones, Claim 5), wherein the MicroDrive is a fix small hard drive.

10. As per claim 7, Mowery and Jones teach all the limitations of claim 1 as discussed above, where Mowery further teaches the multiple format interface adapter for small storage comprising wherein the two-system end-interfaces include a power terminal that transmits an operating voltage issued from the system (e.g. host) when one of the storage media card inserts (Mowery, Fig. 6B; Fig. 8 and col. 5, l. 32 to col. 6,

Art Unit: 2181

I. 20), as the power for operation from the host will not apply if there is no storage media card inserted

11. As per claim 8, Mowery and Jones teach all the limitations of claim 1 as discussed above, where Jones further teaches the multiple format interface adapter for small storage comprising wherein the storage media interface further includes a plurality of address terminals, data transmission terminals and control terminals (Jones, [0082]), wherein the address terminals transfer address signals, the data transmission terminals transfer data signals and the control terminals transfer control signals.

12. As per claim 16, Mowery and Jones teach all the limitations of claim 1 as discussed above, where Mowery further teaches the multiple format interface adapter for small storage further comprising a card insertion detect terminal (Mowery, Fig. 16, ref. 1001, 1002, 1003, 1604) that detect the insertion of any of the storage media cards (Mowery, Fig. 16 and col. 8, ll. 41-67).

13. As per claim 17, Mowery and Jones teach all the limitations of claim 1 as discussed above, where Mowery further teaches the multiple format interface adapter for small storage comprising wherein the two-system-end interfaces include a power terminal that transmits an operating voltage issued from the system end (e.g. host) when one of the storage media cards inserts (Mowery, Fig. 6B; Fig. 8 and col. 5, l. 32 to

Art Unit: 2181

col. 6, l. 20), as the power for operation from the host will not apply if there is no storage media card inserted.

14. As per claim 21, Mowery and Jones teach all the limitations of claim 1 as discussed above, where both further teach the multiple format interface adapter for small storage comprising wherein the signal converter control chip is an IDE converter control chip to convert storage media compatible USB signals (Mowery, USB interface of Fig. 6C) to system compatible IDE signals (Jones, Fig. 3B, ref. 51) (Jones, [0050]).

15. As per claim 22, Mowery and Jones teach all the limitations of claim 1 as discussed above, where Mowery further teaches the multiple format interface adapter for small storage comprising wherein the signal controller includes a circuit board and a multi-card reader control chip (Mowery, Fig. 4), wherein the card (Fig. 4, ref. 400) would obviously be implemented utilizing the circuit board having the multi-card reader control chip soldered on the circuit board.

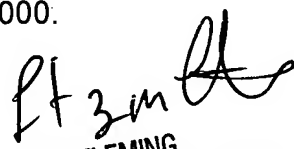
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz M. Fleming can be reached on (571) 272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.K.L.
01/05/2007


FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
1/6/2007